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On the northernmost species of Hersiliidae (Aranei), *Hersiliola xinjiangensis* (Liang & Wang, 1989), comb.n.

О самом северном виде херсилиид (Aranei: Hersiliidae), *Hersiliola xinjiangensis* (Liang & Wang, 1989), comb.n.

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КЛЮЧЕВЫЕ СЛОВА: паук, новая комбинация, новая находка, Узбекистан.

ABSTRACT. *Hersiliola xinjiangensis* (Liang & Wang, 1989), comb.n. ex. *Hersilia xinjiangensis* early known from Xinjiang has been redescribed on the basis of specimens from Uzbekistan.

РЕЗЮМЕ. *Hersiliola xinjiangensis* (Liang & Wang, 1989), comb.n. ex. *Hersilia xinjiangensis*, ранее известная из Синьцзяна детально переописана на основе экземпляров из Узбекистана.

The Hersiliidae is a small, globally distributed spider family with 157 species and 11 genera [Platnick, 2008]. Within the last two decades it was a subject for several regional revisions in Australasian, African, and Neotropical regions [Baehr & Baehr, 1987, 1993, 1998; Levy, 2003; Rheims & Brescovit, 2004; Rheims et al., 2004; Foord & Dippenaar-Schoeman, 2005, 2006, and a few smaller papers], with over 110 species described in all genera, except for *Hersiliola* Thorell, 1870. Until the very recent revision of epigeic genus *Hersiliola* by Foord & Dippenaar-Schoeman [2005], seven species from Africa and the western Palaearctic have been known in this genus. Currently [Platnick, 2008] only five valid species are left in *Hersiliola*: *H. afghanica* Roewer, 1960 (Afghanistan, Turkmenistan), *H. macullulata* (Dufour, 1831) (from Mediterranean to Turkmenistan; type species), *H. pallida* Kroneberg, 1875 (Kyrgyzstan, Uzbekistan, Tajikistan, Pakistan), *H. simoni* (O. Pickard-Cambridge, 1872) (Mediterranean, Nigeria, Cape Verde Islands) and *H. versicolor* (Blackwall, 1865) (Cape Verde Islands). Three of them are known from females only: *H. afghanica*, *H. pallida*, and *H. versicolor*.

A survey of material collected by Alexander Gromov in Uzbekistan reveals one additional species of *Hersiliola*, originally incorrectly placed in *Hersilia* Audouin, 1826, the most speciose genus of the family. This species, *Hersilia xinjiangensis* Liang & Wang, 1989, was described from northern Xinjiang, China, which is the northernmost locality of *Hersiliola* and the entire family.

Since this species was placed in wrong genus, and its original description was very brief, with diagnostic characters not properly illustrated, and all three publications dealing with this species encompass the same figures, I decided to redescribe it, in addition to establishing a new combination.

Specimens were photographed using an Olympus SZX12 stereomicroscope and Olympus Camedia C-5050 camera in Zoological Museum, University of Turku, Finland. The images have been montaged using "CombineZM" image stacking software. Epigyne was macerated with in lactic acid. All material was deposited in Zoological Museum of Moscow State University (K.G. Mikhailov). All measurements age given in millimeters.

Hersiliola xinjiangensis (Liang & Wang, 1989), **comb.n.**

Figs 1–14.

Hersilia Xinjiangensis Liang & Wang, 1989: 56, f. 1–4 (D♂♀).

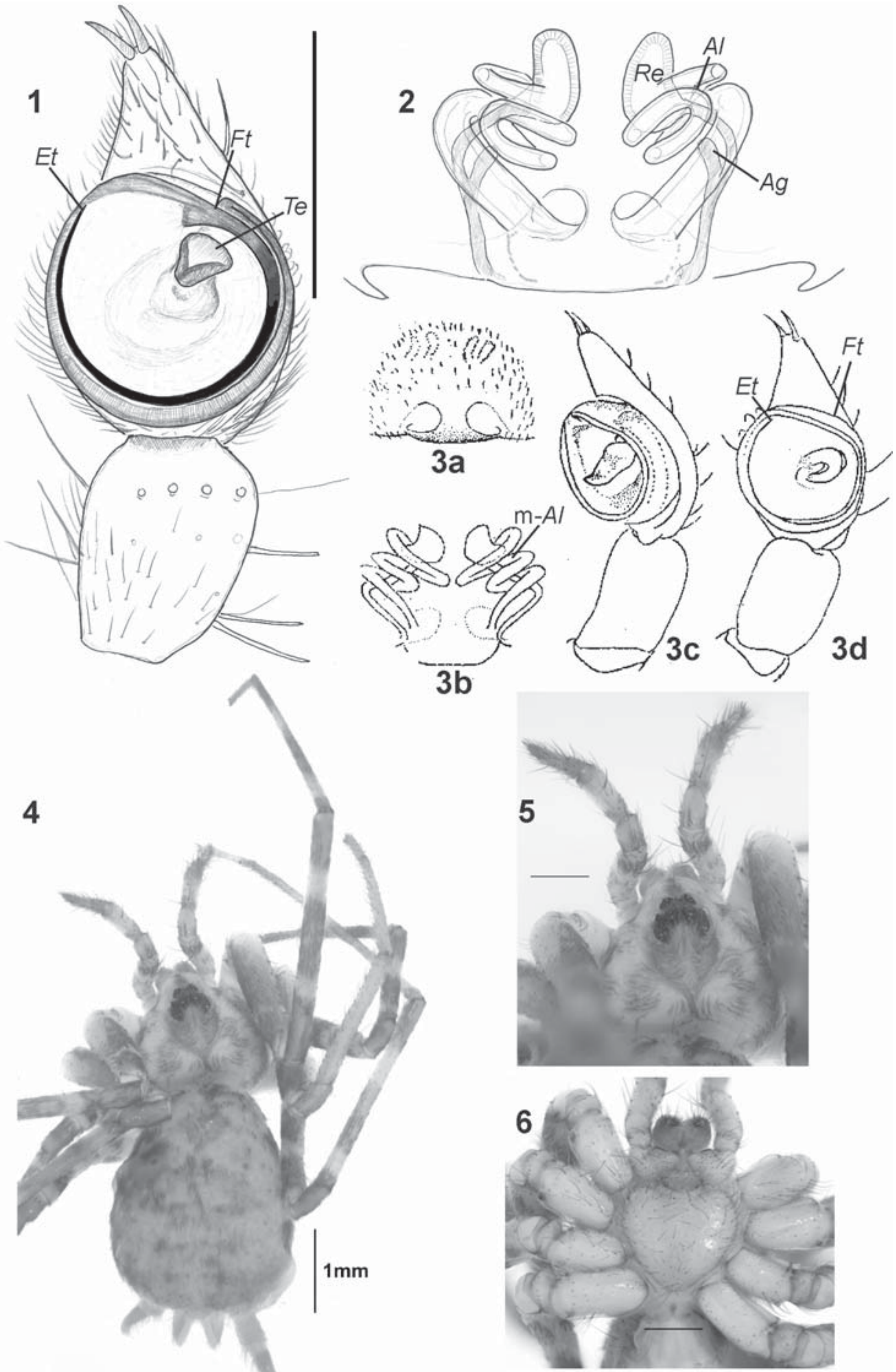
H. x. Hu & Wu, 1989: 78, f. 55.5–8 (♂♀, same Figs as in Liang & Wang, 1989).

H. x. Song et al., 1999: 80, f. 32O-P, 33F-G (♂♀ same Figs as in Liang & Wang, 1989).

MATERIAL. UZBEKISTAN: 1 ♂ (ZMMU), Namangan Region, Pap District, SE foothills of Kurama Mt. Range, ca. 5.5 km NW of Khanabad, ca. 380 m a. s. l., under stones, 40°54'15"N 70°45'29"E, 15.05.2002 (A.V. Gromov); 2 ♂♂, 2 ♀♀ (ZMMU), Namangan Region, Pap District, SE foothills of Kurama Mt. Range, ca. 5–5.5 km NW of Khanabad, ca. 850 m a.s.l., 40°54'05"N 70°45'44"E, 16.05.2002 (A.V. Gromov).

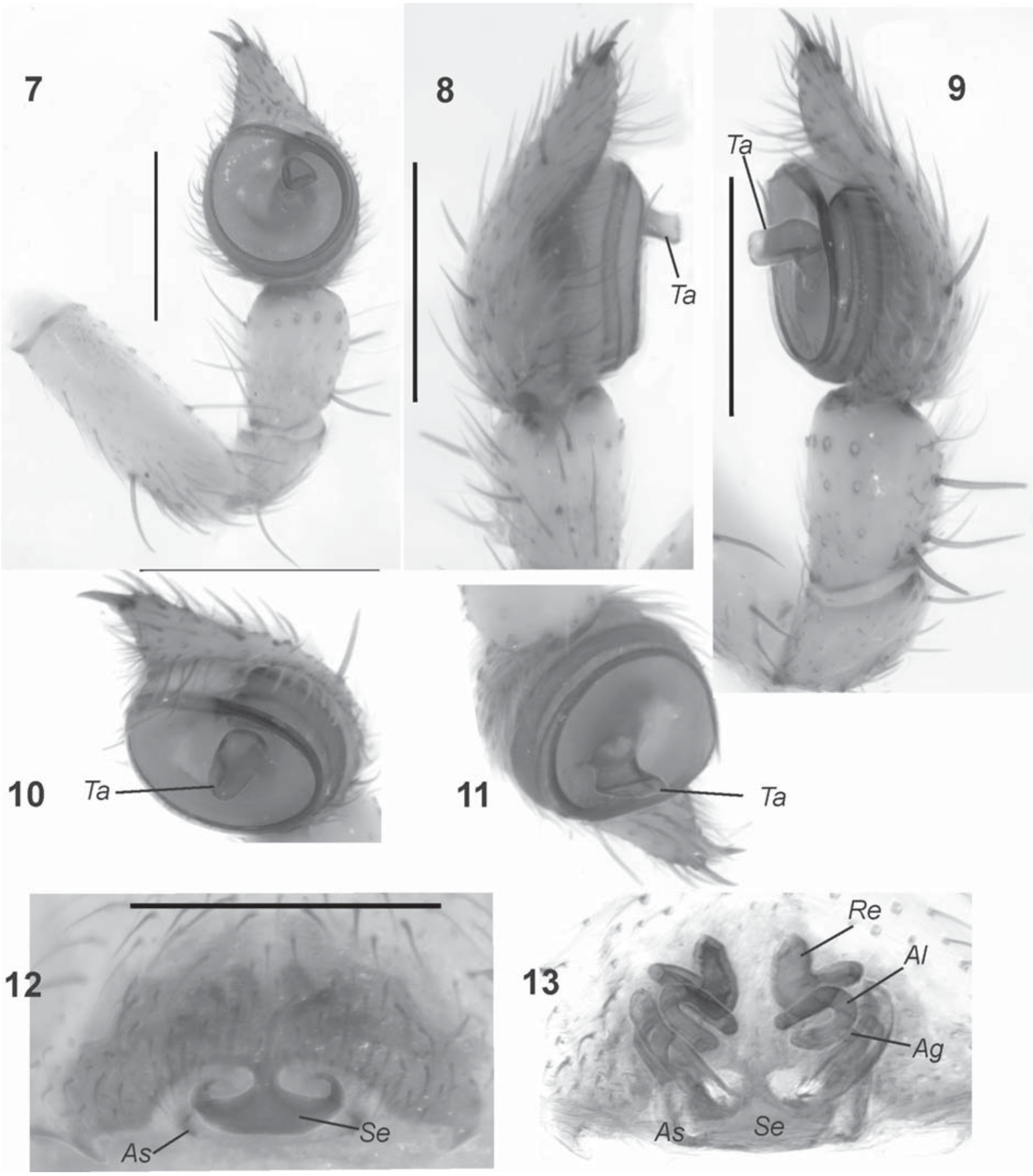
DESCRIPTION. Male. Total length 3.4–3.65. Carapace 1.4–1.5 long, 1.5–1.6 wide, femur I 3.0–3.1 long, femur/carapace length ratio 2.1–2.14. The entire body yellow-light brown, with pattern formed by brown hairs and spots. Carapace with brownish eyes area and posterior cephalic part, with a brown vertical stripe on clypeus (Figs 4–5). Margins

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Figs 1–6. Habitus and copulatory organs of *Hersiliola xinjiangensis*: 1 — left male palp, ventral; 2 — vulva, dorsal; 3a–b — epigyne and vulva respectively; 3c–d — left male palp, ventro-retrolateral and ventral respectively; 4 — habitus of the female; 5 — female carapace and palps, dorsal; 6 — female prosoma, ventral. Figs 3a–d after Liang & Wang [1989]. Scale 0.5 mm if not otherwise indicated. Abbreviations *Ag* — accessorial gland, *Al* — apical loop, *Et* — embolic tip, *Ft* — flattened part of tegulum, *m-Al* — misinterpreted *Al*, *Re* — receptaculum, *Ta* — tegular apophysis.

Рис. 1–6. Габитус и копулятивные органы *Hersiliola xinjiangensis*: 1 — левый пальпус самца, вентрально; 2 — вульва, дорзально; 3a–b — эпигина и вульва соответсвенно; 3c–d — левый пальпус самца, вентро-латеральнои вентрально соответсвенно; 4 — габитус самки; 5 — пальпа и карапакс самки, дорзально; 6 — просома самки, вентрально. Рис 3a–d по Liang & Wang [1989]. Масштаб 0,5 мм если не указно иначе. Сокращения: *Ag* — дополнительная железа, *Al* — верхняя петля, *Et* — вершина эмболюса, *Ft* — уплощённая часть цимбиума, *m-Al* — неверное интерпретированная *Al*, *Re* — рецептакула, *Ta* — тегулярный отросток.



Figs 7–13. Left male palp and epigyne of *Hersiliola xinjiangensis*: 7 — whole palp, ventral; 8 — palp, prolateral; 9 — palp, retrolateral; 10 — palp, from above; 11 — palp, caudal; 12 — epigyne ventral; 13 — epigyne after maceration, dorsal. Scale 0.5 mm. Abbreviations: *Ag* — accessorial gland, *Al* — apical loop, *As* — accessorial sclerite, *Et* — embolic tip, *Ft* — flattened part of tegulum, *Re* — receptaculum, *Se* — septum, *Ta* — tegular apophysis.

Рис. 7–13. Левый пальпус самца и эпигина *Hersiliola xinjiangensis*: 7 — целый пальпус, вентрально; 8 — пальрус, пролатерально; 9 — пальпус, ретролатерально; 10 — пальпус, сверху; 11 — пальпус, сзади; 12 — эпигина вентрально; 13 — эпигина после мацерации, дорзально. Масштаб 0,5 mm. Сокращения: *Ag* — дополнительная железа, *As* — дополнительный склерит*, Et* — вершина эмболюса, *Ft* — уплощённая часть цимбиума, *Re* — рецептакула, *Se*— септум, *Ta* — тегулярный отросток.

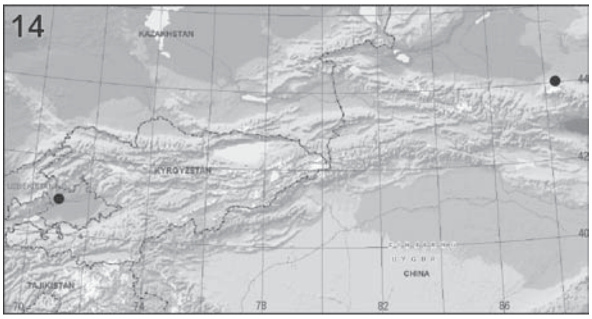


Fig. 14. Distribution of *Hersiliola xinjiangensis.*
Рис. 14. Распространение *Hersiliola xinjiangensis.*

of carapace brown. Abdomen with indistinct pattern. Legs with broad dark annulations, dark rings are wider than light ones. Almost the entire femur I is dark. Coxae IV spaced by one diameter. Palp as in Figs 1, 3c–d, 7–11. Femur, patella+tibia and cymbium subequal in length, tibia in terminal part slightly wider than femur. Cymbium with two apical claws. Tegulum discoid, with long whip-like embolus and tegular apophysis. Embolus starts at about one o'clock, makes a loop of more than 270° and terminates around ten o'clock. Tegular apophysis perpendicular to tegulum. Apical part of bulb slightly flattened (embolus straight not rounded).

Female. Total length 3.75–4.0. Carapace 1.4–1.5 long, 1.5–1.6 wide, femur I 2.25–2.5 long, femur/carapace length ratio 1.6. Coloration as in male. Epigyne as in Figs 2, 3a–b, 12–13. Septum (=median plate) anchor-like with pair of small accessorial sclerites next to it that make basal part to appear wider, receptacula and seminal duct visible through translucent integument. Accessorial gland digitiform.

DIAGNOSIS. Males of *H. xinjiangensis* differ from males of *H. simoni* and *H. macullulata* by the flattened apical part of tegulum, tongue-shaped tegular apophysis (in apical or frontal view) and starting point of embolus (eleven o'clock in *H. simoni* and five o'clock in *H. macullulata*). Females of *H. xinjiangensis* differ from congeners by the shape of septum and insemination ducts with fewer coils.

DISTRIBUTION. *H. xinjiangensis* is known so far from three localities and 9 specimens. Two nearby localities are in the eastern Uzbekistan, and one (type locality) is in the northern Xinjiang, China (Fig. 14). *H. xinjiangensis* is the northernmost species of the genus and of the entire family Hersiliidae. In Iberian Peninsula, the northernmost locality of *Tama edwardsi* (Lucas, 1846) [Ribera et al., 1986] lies in northeastern Portugal about 41°N, while type locality of *H. xinjiangensis* lies north of 44°N.

NOTES. There is no doubt that this species belongs to *Hersiliola* instead of *Hersilia*. This is clear from shortened spinnerets (Fig. 4), discoid tegulum, shape and position of tegular apophysis, and shape of epigyne and vulva.

Types of this species (two males and two females) have been deposited in the Department of Plant Protection, Xinjiang August Agricultural College [Liang & Wang, 1989]. Shuqian Li tried to find types by my request but failed. It seems that after the retirement of Tie Liang they were lost or transferred somewhere.

There is a certain opportunity that the Uzbekistan specimens are not conspecific with the Chinese one, because they are smaller in size and have a slightly different epigyne. However, they have identically shaped apical part of tegulum (character unknown in other *Hersiliola* species), identical position of embolic tip, and identical shape of tegular apophysis. Base of embolus is not shown on the Chinese figures. Shape of insemination duct in my and Chinese figures are different because of misinterpretation by Liang and Wang. All species of *Hersiliola* have a loop in apical part of vulva instead of a coil shown in Fig. 3b.

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